

### REMARKS

Applicant requests favorable reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks.

Claims 32-36, 39, 41, and 43-54 are pending in the present application. Claims 32, 44, 45, 51, 52, and 53 are the independent claims. Claim 38 has been cancelled without prejudice.

Claims 53 and 54 have been added. Applicant submits that support for these new claims can be found in the original disclosure, and therefore no new matter has been added.

Applicant appreciates the indication that Claims 34 and 35 have been objected to but would be allowable if rewritten in independent form. Applicant has not rewritten those claims in that manner at this time because, for the reasons discussed below, Applicant believes that the independent claims are allowable.

Claim 38 stands rejected under 35.U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Without conceding the propriety of that rejection, Claim 38 has been canceled and the rejection is now moot.

Claims 32, 33, 36, 39, 41 and 43-52 stand rejected under 35.U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,411,266 (Maguire, Jr.) in view of U.S. Patent No. 4,988,981 (Zimmerman) and U.S. Patent No. 6,278,418 (Doi). Applicant respectfully traverses this rejection for the following reasons.

As recited in Claim 32, the present invention is directed to a mixed reality presentation method including, *inter alia*, the feature wherein a pointer display is made up

of not less than  $n$  ( $n$  is an integer not less than 2) parallel lines each of which passes through vertices of a regular  $n$ -sided polygon. In other words, a pointer display is made up of 2 or more parallel lines, and each of the parallel lines passes through a respective vertex of a regular  $n$ -sided polygon. Support for this feature can be found, for example, at least in Fig. 14 of the drawings.

The shape of the pointer display defined by Claim 32 is very important feature that provides specific advantages over conventional pointer displays. Specifically, this feature prevents a portion of a view that overlaps with the pointer display (in either virtual space or real space) from being hidden by the pointer display. As an example, if a pointer display were comprised of a triangular pyramid of surfaces (as shown, e.g., in Fig. 12(c)), then the pointer display would occupy a significant region of a player's view when the player is pointed at by another player, thereby obscuring the pointed-at player's view of the mixed reality space. In contrast, since the pointer display recited in Claim 32 made up of parallel lines, it occupies much less of a player's view.

In addition, processing of lines is easier than of surfaces, and therefore a processing load required to generate and display the pointer display recited in Claim 32 is much less than that required to generate and display a pointer display made up of surfaces. Also, the shape of the claimed pointer display makes it easier for a player to recognize a perspective of the pointer display.

Applicant submits that the cited art fails to disclose or suggest at least the above-mentioned feature of Claim 32. Maguire, Jr. does not disclose or suggest any pointing display, as the Examiner correctly acknowledges. Zimmerman discloses display of a cursor 26 in response to motion of a glove assembly 12. *See, e.g.,* Fig. 1. However,

cursor 26 disclosed by Zimmerman is two-dimensional and is not made up of  $n$  parallel lines that each pass through vertices of a regular  $n$ -sided polygon.

Similarly, Doi also fails to disclose or suggest at least the above-mentioned feature. As an initial matter, Applicant submits that the image of a weapon as disclosed in Doi is different from a pointing display, and therefore there is no motivation to modify the pointing display of Zimmerman in view of the image of a weapon in Doi. Further, the Examiner asserts that the weapons W1 and W2 of Doi are  $n$ -sided polygons. However, the language of Claim 32 recites a regular  $n$ -sided polygon, which one skilled in the art would know is an  $n$ -sided polygon where all the sides are of equal length. Applicant submits that, while the weapons W1 and W2 of Doi may be comprised of polygons, that patent does not disclose or suggest a regular  $n$ -sided polygon and also does not disclose or suggest a pointer display made up of 2 or more parallel lines that each pass through vertices of a regular  $n$ -sided polygon.

For the foregoing reasons, Applicant submits that Claim 32 is patentable over the cited art, whether that art is considered individually or in combination. Claims 44 and 53 recite a similar feature to that discussed above, and those claims are patentable for reasons similar to Claim 32.

As recited in Claim 45, the present invention is directed to a mixed reality presentation method that includes, among others, the feature of generating a virtual image to be superimposed on an image of a second player included in a sensed image based on first location information (representing locations of plural portions of a first player), second location information (representing locations of plural portions of the second player), and a player model. In other words, a virtual image that is generated for superimposing on an

image of a second player is based, in part, on information regarding the locations of plural portions of the second player. By this feature, the superimposed virtual image can more accurately reflect movement of the second player. For example, if a hand of the second player moves, the virtual image can reflect the motion of the hand.

Applicant submits that the cited art fails to disclose or suggest at least the above-mentioned feature recited in Claim 45. Accordingly, that claim is patentable over the cited art, whether the art is considered individually or in combination. Claims 51 and 52 recite a similar feature and are patentable for similar reasons.

The dependent claims are patentable for at least the same reasons as the independent claims they depend from, as well as for the additional features they recite.

For the foregoing reasons, Applicant submits that this application is in condition for allowance. Favorable reconsideration, entry of this Amendment, withdrawal of the rejections set forth in the above-mentioned Office Action, and an early Notice of Allowance are requested.

Applicant's undersigned attorney may be reached in our Washington, DC office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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